

ABSTRACT OF THE DISCLOSURE

A control system capable of controlling a heater that heats an oxygen concentration detector in a fine-grained, efficient, and optimal manner. The control system controls an O2 heater for heating an O2 sensor provided in an exhaust pipe of an internal combustion engine, when the engine is started. An ECU sets a duty ratio of a control signal supplied to the O2 heater to a first predetermined value until a first predetermined time period has elapsed after the start of the engine was detected, and sets the same to a second predetermined value smaller than the first predetermined value until a second predetermined time period has elapsed after the lapse of the first predetermined value. Further, the ECU sets the duty ratio of the control signal to a third predetermined value smaller than the second predetermined value after the lapse of the second predetermined time period.